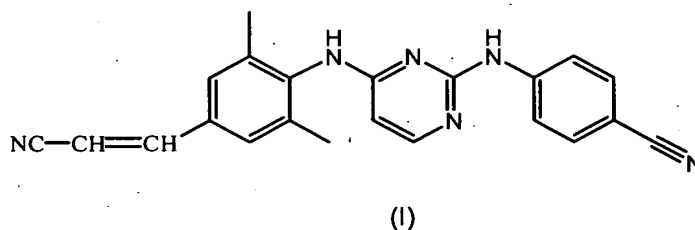
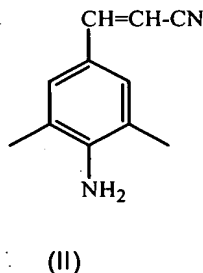


Claims

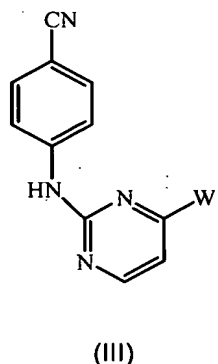
1. A process for the preparation of 4-[[4-[[4-(2-cyanoethenyl)-2,6-dimethylphenyl]-amino]-2-pyrimidinyl]amino]benzonitrile of formula (I), a *N*-oxide, a pharmaceutically acceptable acid addition salt, a quaternary amine or a stereochemically isomeric form thereof,



which comprises reacting an intermediate of formula (II), an appropriate acid addition salt or a stereochemically isomeric form thereof

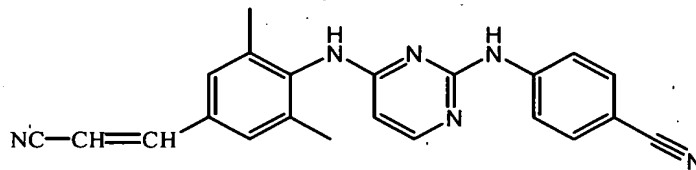


- with an intermediate of formula (III), an appropriate acid addition salt or a *N*-oxide thereof



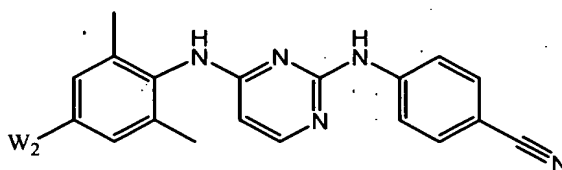
- wherein W₁ represents a suitable leaving group, in the presence of a suitable solvent,
- optionally followed, if desired, by converting the free base into an acid addition salt by treatment with an acid, or conversely, by converting the acid addition salt form into the free base by treatment with alkali; and optionally followed, if desired, by preparing stereochemically isomeric forms, *N*-oxide forms or quaternary amines thereof.
2. A process according to claim 1 wherein the solvent is acetonitrile.

3. A process for the preparation of 4-[[4-[[4-(2-cyanoethenyl)-2,6-dimethylphenyl]-amino]-2-pyrimidinyl]amino]benzonitrile of formula (I), a *N*-oxide, a pharmaceutically acceptable acid addition salt, a quaternary amine or a stereochemically isomeric form thereof



(I)

which comprises reacting an intermediate of formula (IV), an appropriate acid addition salt or a *N*-oxide thereof



(IV)

wherein W_2 represents a suitable leaving group, with acrylonitrile in the presence of a suitable palladium catalyst, a suitable base and a suitable solvent,

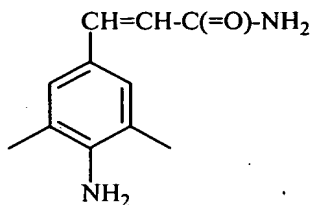
optionally followed, if desired, by converting the free base into an acid addition salt by treatment with an acid, or conversely, by converting the acid addition salt form into the free base by treatment with alkali; and optionally followed, if desired, by preparing stereochemically isomeric forms, *N*-oxide forms or quaternary amines thereof.

4. A process for the preparation of 4-[[4-[[4-(2-cyanoethenyl)-2,6-dimethylphenyl]-amino]-2-pyrimidinyl]amino]benzonitrile of formula (I), a *N*-oxide, a pharmaceutically acceptable acid addition salt, a quaternary amine or a stereochemically isomeric form thereof



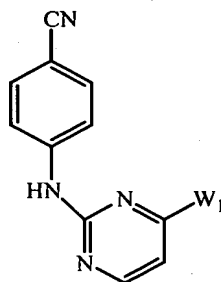
(I)

which comprises reacting an intermediate of formula (VI), an appropriate acid addition salt or a stereochemically isomeric form thereof



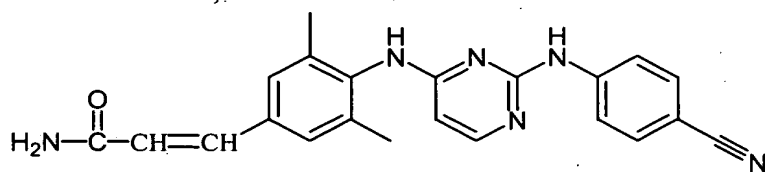
(VI)

with an intermediate of formula (III), an appropriate acid addition salt or a *N*-oxide thereof



(III)

- 5 wherein W_1 represents a suitable leaving group, in the presence of a suitable solvent, followed by dehydration of the thus obtained intermediate of formula (VII), a pharmaceutically acceptable acid addition salt, a stereochemically isomeric form or a *N*-oxide thereof,



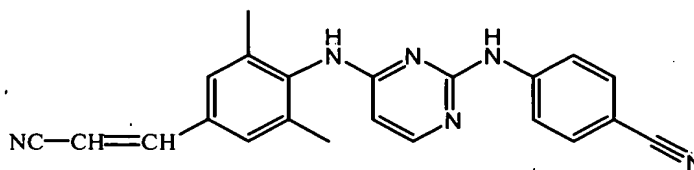
(VII)

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optionally followed, if desired, by converting the free base into an acid addition salt by treatment with an acid, or conversely, by converting the acid addition salt form into the free base by treatment with alkali; and optionally followed, if desired, by preparing stereochemically isomeric forms, *N*-oxide forms or quaternary amines thereof.

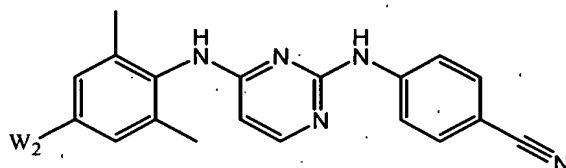
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5. A process for the preparation of 4-[[4-[[4-(2-cyanoethenyl)-2,6-dimethylphenyl]amino]-2-pyrimidinyl]amino]benzonitrile of formula (I), a *N*-oxide, a pharmaceutically acceptable acid addition salt, a quaternary amine or a stereochemically isomeric form thereof



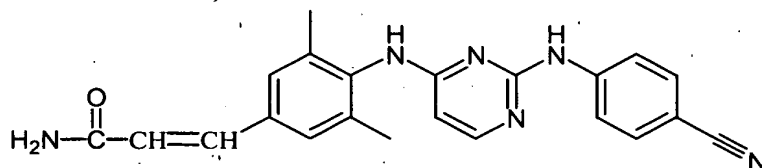
(I)

which comprises reacting an intermediate of formula (IV), an appropriate acid addition salt or *N*-oxide thereof



(IV)

- 5 wherein W_2 represents a suitable leaving group, with acrylamide in the presence of a suitable palladium catalyst, a suitable base and a suitable solvent, followed by dehydration of the thus obtained intermediate of formula (VII), a pharmaceutically acceptable acid addition salt, a stereochemically isomeric form or *N*-oxide thereof,

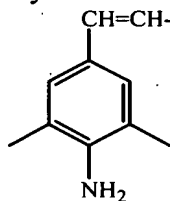


(VII)

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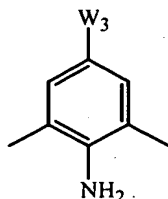
- optionally followed, if desired, by converting the free base into an acid addition salt by treatment with an acid, or conversely, by converting the acid addition salt form into the free base by treatment with alkali; and optionally followed, if desired, by preparing stereochemically isomeric forms, *N*-oxide forms or quaternary amines thereof.
- 15

6. A process for the preparation of an intermediate of formula (II), an appropriate acid addition salt, a quaternary amine or a stereochemically isomeric form thereof



(II)

which comprises reacting an intermediate of formula (V), an appropriate acid addition salt or a quaternary amine thereof



(V)

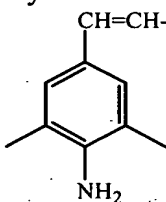
wherein W_3 represents a suitable leaving group, with acrylonitrile in the presence of a
5 suitable palladium catalyst, a suitable base and a suitable solvent,

optionally followed, if desired, by converting the free base into an acid addition salt by
treatment with an acid, or conversely, by converting the acid addition salt form into the
free base by treatment with alkali; and optionally followed, if desired, by preparing
10 stereochemically isomeric forms, *N*-oxide forms or quaternary amines thereof.

7. A process according to claim 3 or claim 6 wherein the palladium catalyst is a
heterogeneous palladium catalyst.

15 8. A process according to claim 7 wherein the heterogeneous palladium catalyst is
palladium on charcoal.

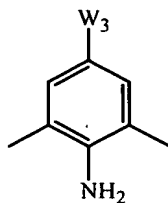
9. A process for the preparation of an intermediate of formula (II), an appropriate acid
addition salt, a quaternary amine or a stereochemically isomeric form thereof



(II)

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which comprises reacting an intermediate of formula (V), an appropriate acid addition
salt or a quaternary amine thereof

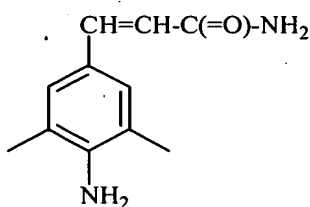


(V)

wherein W_3 represents a suitable leaving group, with acrylamide in the presence of a suitable palladium catalyst, a suitable base and a suitable solvent,

followed by dehydration of the thus obtained intermediate of formula (VI), an

appropriate acid addition salt, a quaternary amine or a stereochemically isomeric form thereof,

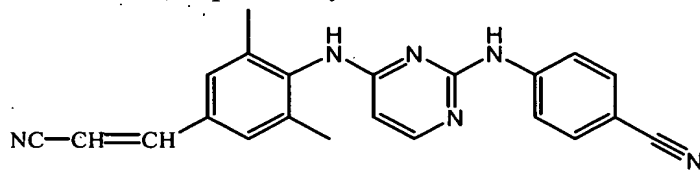


(VI)

optionally followed, if desired, by converting the free base into an acid addition salt by treatment with an acid, or conversely, by converting the acid addition salt form into the free base by treatment with alkali; and optionally followed, if desired, by preparing stereochemically isomeric forms, *N*-oxide forms or quaternary amines thereof.

10. A process according to any one of claims 1 to 5 wherein the 4-[[4-[[4-(2-cyanoethenyl)-2,6-dimethylphenyl]amino]-2-pyrimidinyl]amino]benzonitrile of formula (I); a *N*-oxide, a pharmaceutically acceptable acid addition salt, a quaternary amine or a stereochemically isomeric form thereof, is 4-[[4-[[4-(2-cyanoethenyl)-2,6-dimethylphenyl]amino]-2-pyrimidinyl]amino]benzonitrile (E).

11. 4-[[4-[[4-(2-cyanoethenyl)-2,6-dimethylphenyl]amino]-2-pyrimidinyl]-amino]benzonitrile of formula (I), a *N*-oxide, a pharmaceutically acceptable acid addition salt, a quaternary amine or a stereochemically isomeric form thereof



(I)

12. A compound according to claim 11 wherein the compound is 4-[[4-[[4-(2-cyanoethenyl)-2,6-dimethylphenyl]amino]-2-pyrimidinyl]amino]benzonitrile (E).